



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0734; Directorate Identifier 2012-SW-080-AD]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for Bell Helicopter Textron Canada (Bell) Model 222, 222B, 222U, 230, and 430 helicopters, which proposed to require replacing certain servo actuators before further flight. The NPRM was prompted by a collective servo actuator malfunction. This action revises the NPRM by adding new actions. Since these actions impose an additional burden over that proposed in the NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: We must receive comments on this SNPRM by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the Transport Canada Civil Aviation (TCCA) AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For Woodward HRT and Bell service information identified in this proposed AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l’Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <http://www.bellcustomer.com/files/>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Matt Wilbanks, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email matt.wilbanks@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to remove AD 2010-19-51, Amendment 39-16523 (75 FR 71540, November 24, 2010) and add a new AD. AD 2010-19-51 applies to Bell Model 222, 222B, 222U, 230, and 430 helicopters and requires inspecting parts of the servo actuator for certain conditions and replacing any unairworthy parts before further flight. AD 2010-19-51 was prompted by a collective servo actuator malfunction due to a nonconforming grind relief on a separate piston rod and corrosion cracking at the threaded end of the output piston rod assembly.

The actions of AD 2010-19-51 were intended to detect corrosion or a nonconforming piston rod that, if not corrected, could result in the failure of the piston rod, failure of the servo actuator, and subsequent loss of helicopter control.

The NPRM was published in the Federal Register on August 20, 2013 (78 FR 51123). The NPRM proposed inspecting servo actuator, part number (P/N) 222-382-001-107, for pitting or penetration of the base metal of the piston rod. If the piston rod has pitting or any penetration of the base metal, the NPRM proposed replacing the servo actuator with servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM, before further flight. Thereafter, the NPRM proposed requiring overhauling servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM at intervals not to exceed 10 years or 10,000 hours TIS, whichever comes first.

Comments

After our NPRM (78 FR 51123, August 20, 2013) was published, we received comments from one commenter.

Request

Bell noted that the AD does not mandate replacement of servo actuator P/N 222-382-001-107 with servo actuator part number P/N 222-382-001-111 if no pitting or penetration of the base metal is found during the inspection, and requested that we include the replacement provisions in Part 1 of Bell Alert Service Bulletin (ASB) 430-11-46, Revision A, dated June 22, 2012.

We agree. In light of Bell's comment, we have determined that our AD should retain all of the inspection requirements of AD 2010-19-51 (75 FR 71540, November 24, 2010) and also include compliance times for replacing servo actuator P/N 222-382-001-

107 with servo actuator part number P/N 222-382-001-111 or -111FM based upon the results of the inspection, as specified in Revision A of the ASB. We have changed the Required Actions accordingly and are consequently proposing this SNPRM.

FAA's Determination

We are proposing this SNPRM because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of these same type designs. Certain changes described above expand the scope of the original NPRM. As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Related Service Information under 1 CFR part 51

We reviewed Woodward HRT Service Bulletin 141600-67-02, dated August 18, 2010, which provides instructions for disassembling the servo actuator and for cleaning and inspecting the piston rod and nut. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this SNPRM.

Other Related Service Information

We also reviewed Bell ASB 222-11-111 for Model 222 and 222B helicopters, ASB 222U-11-82 for Model 222U helicopters, ASB 230-11-43 for Model 230 helicopters, and ASB 430-11-46 for Model 430 helicopters, all Revision A and all dated June 22, 2012. The ASBs contain, and require compliance with, Woodward HRT Service Bulletin 141600-67-03, dated February 14, 2012, to upgrade the servo actuator by replacing the piston rod and then re-identifying the servo actuator dash number with

“-111FM.” The compliance time for upgrading the servo actuator varies depending on the results of the inspections required by Woodward HRT Service Bulletin 141600-67-02, dated August 18, 2010. The Bell ASBs also provide an alternative inspection procedure for servo actuator P/N 222-382-001-107 that has not reached certain hours TIS and where the servo actuator cannot be upgraded. TCCA classified these ASBs as mandatory and issued AD No. CF-2010-29R1, dated July 26, 2012, to ensure the continued airworthiness of these helicopters.

Proposed Requirements of the SNPRM

This proposed AD would require before further flight:

- Disassembling each servo actuator.
- Cleaning the piston rod and nut, and inspecting the grind relief configuration for the piston rod and nut. If the grind relief is unacceptable, replacing the piston rod and nut.
- Using a 10x or higher magnifying glass, visually inspecting the nut for any corrosion or any damage to the threads, and replacing the nut if you find any corrosion or any damage to the threads.
- Using a 10x or higher magnifying glass, visually inspecting the piston rod for any corrosion, lack of cadmium plate, or damage.
- If there is any corrosion or lack of cadmium plate or damage in certain critical areas, replacing the servo actuator with P/N 222-382-001-111 or P/N 222-382-001-111FM before further flight.
- If there is any corrosion or lack of cadmium plate in areas that are not critical areas, reworking the piston rod, inspecting for bare base metal, and reassembling the

servo actuator. Replacing the servo actuator with P/N 222-382-001-111 or P/N 222-382-001-111FM would be required within 1,200 hours time-in-service (TIS) or 1 year, whichever occurs first.

- If there is any corrosion that is red or orange in color, magnetic particle inspecting the piston rod for a crack, and replacing the servo actuator with P/N 222-382-001-111 or P/N 222-382-001-111FM before further flight if there is a crack or within 2,400 hours TIS or 2 years, whichever occurs first, if there is no crack.

- If there is no corrosion, lack of cadmium plate, or damage, inspecting for bare base metal, and reassembling the servo actuator. Replacing the servo actuator with P/N 222-382-001-111 or P/N 222-382-001-111FM would be required within 3,000 hours TIS or 4 years, whichever occurs first.

- Overhauling servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM at intervals not to exceed 10 years or 10,000 hours TIS, whichever occurs first.

Differences Between the Proposed AD and the TCCA AD

The TCCA AD requires inspecting each servo actuator to determine the condition of the piston rod assembly no later than 5 hours upon receiving the original issue of its AD. This proposed AD would require inspecting each servo actuator to determine the condition of the piston rod assembly before further flight.

Costs of Compliance

We estimate that this proposed AD would affect 146 helicopters of U.S. Registry and that labor costs average \$85 a work-hour. Based on these estimates, we expect the following costs:

- Inspecting a servo actuator would require 4 work-hours per actuator for a labor cost of \$340. No parts would be needed for a total cost of \$1,020 per helicopter and \$148,920 for the U.S. fleet given 3 actuators per helicopter.

- Replacing a servo actuator would require 8 work-hours for a labor cost of \$680. Parts would cost \$35,700 for a total cost of \$36,380 per actuator.

- Overhauling the servo actuator would require 8 work-hours for a labor cost of \$680. Parts would cost \$11,900 for a total cost of \$12,580 per actuator.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Bell Helicopter Textron Canada: Docket No. FAA-2013-0734; Directorate Identifier 2012-SW-080-AD.

(a) Applicability

This AD applies to Bell Helicopter Textron Canada (Bell) Model 222, 222B, 222U, 230, and 430 helicopters, with a main rotor hydraulic servo actuator (servo actuator) part number (P/N) 222-382-001-107 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as corrosion or a nonconforming grind relief on the output piston rod assembly (piston rod). This condition could lead to failure of the piston rod, failure of the servo actuator, and subsequent loss of helicopter control.

(c) Affected ADs

This AD supersedes AD 2010-19-51, Amendment 39-16523 (75 FR 71540, November 24, 2010).

(d) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

Before further flight:

(1) Disassemble each servo actuator to gain access to the piston rod as shown in Figures 1 through 5 and by following the Accomplishment Instructions, paragraph 3.A.,

Part I., of Woodward HRT Alert Service Bulletin No. 141600-67-02, Revision 0, dated August 18, 2010 (Woodward ASB).

(2) Clean the entire piston rod and nut using acetone and a nylon bristle brush removing all contaminants to allow for inspection. Inspect the grind relief configuration for the piston rod and nut as shown in Figure 6 of the Woodward ASB. If the grind relief is unacceptable as shown in Figure 6, replace the piston rod and the nut with airworthy parts.

(3) Using a 10x or higher magnifying glass, visually inspect the nut for any corrosion or any damage to the threads. If you find any corrosion or any damage to the threads, replace the nut with an airworthy nut.

(4) Using a 10x or higher magnifying glass, visually inspect the piston rod as shown in Figure 7 of the Woodward ASB for any corrosion, visible lack of cadmium plate (gold or gray color), or damage to the piston rod. For the purposes of this AD, damage to the piston rod is defined as pitting, a visible scratch, a crack, or a visible abrasion.

(i) If there is any corrosion or visible lack of cadmium plate or any damage to the piston rod in the Critical Areas as shown in Figure 7 of the Woodward ASB, replace the servo actuator with servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM before further flight.

(ii) If there is any corrosion or visible lack of cadmium plate on the piston rod in areas that are not considered Critical Areas as shown in Figure 7 of the Woodward ASB, rework the piston rod by removing any surface corrosion that has not penetrated into the base material by lightly buffing. Clean the part using acetone and a nylon bristle brush to

remove any residue. Comply with paragraphs (f)(5) through (f)(7) of this AD. Within 1,200 hours time-in-service (TIS) or 1 year, whichever occurs first, replace the servo actuator with servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM.

(iii) If there is any corrosion that is red or orange in color, magnetic particle inspect the piston rod for a crack.

(A) If there is a crack, replace the servo actuator with servo actuator, P/N 222-382-001-111 or P/N 222-382-001-111FM before further flight.

(B) If there is no crack, comply with paragraphs (f)(5) through (f)(7) of this AD. Within 2,400 hours TIS or 2 years, whichever occurs first, replace the servo actuator with servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM.

(iv) If there is no corrosion, visible lack of cadmium plate, or damage to the piston rod, comply with paragraphs (f)(5) through and (f)(7) of this AD. Within 3,000 hours TIS or 4 years, whichever occurs first, replace the servo actuator with servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM.

(5) Inspect the portion of the piston rod for any absence of cadmium plating (bare base metal), as shown in Figure 7 of the Woodward ASB. If there is any bare base metal on the piston rod in this area, apply brush cadmium plating to all bare and reworked areas using SPS5070 or equivalent 0.0002 to 0.0005 inch thick and rework the piston rod by following the Accomplishment Instructions, paragraph C., Part III, C.1.1.1. through C.1.1.3., of the Woodward ASB.

(6) Reassemble the servo actuator by following the Accomplishment Instructions, paragraph C, Part III, 1.1.4. through 3.3.4. of the Woodward ASB.

(7) Thereafter, overhaul servo actuator P/N 222-382-001-111 or P/N 222-382-001-111FM at intervals not to exceed 10 years or 10,000 hours TIS, whichever occurs first.

(g) Credit for Actions Previously Completed

Compliance with the Woodward ASB or with AD 2010-19-51 (75 FR 71540, November 24, 2010) before the effective date of this AD is considered acceptable for compliance with the corresponding inspections specified in paragraph (f) of this AD. If you replaced the piston rod pursuant to the Woodward ASB or paragraph (d)(1) or (d)(3) of AD 2010-19-51, apply the requirements of paragraph (f)(4)(iv) of this AD.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Wilbanks, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email matt.wilbanks@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(i) Additional Information

(1) Bell Alert Service Bulletin (ASB) No. 222-11-111 for Model 222 and 222B helicopters, ASB No. 222U-11-82 for Model 222U helicopters, ASB No. 230-11-43 for Model 230 helicopters, and ASB No. 430-11-46 for Model 430 helicopters, all Revision

A and all dated June 22, 2012, which are not incorporated by reference, contain additional information about the subject of this AD. For Woodward HRT and Bell service information identified in this AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <http://www.bellcustomer.com/files/>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in the Transport Canada Civil Aviation (TCCA) AD No. CF-2010-29R1, dated July 26, 2012. You may view the TCCA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2013-0734.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6730, Rotorcraft Servo System.

Issued in Fort Worth, Texas, on May 29, 2015.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2015-14278 Filed: 6/15/2015 08:45 am; Publication Date: 6/16/2015]